

DYNAMIC PRESSURE TRANSDUCERS

HIGH FREQUENCY, ACCELERATION COMPENSATED

DPX101 Series

0-250 to 0-5000 psi

All Models
\$495



- ✓ Ideal for Monitoring Explosion or Pulsation Pressures
- ✓ 1 μ s Rise Time
- ✓ Welded Flush Diaphragm
- ✓ Pressure Ranges Up to 5000 psi
- ✓ High-Level 5 V Output
- ✓ Calibration Certificate Supplied

OMEGA's DPX101 dynamic pressure transducers are ideal for measuring pressure transients or dynamic pressure pulsations in liquids or gases. With their wide dynamic range, they can measure pressure events with rise times as fast as 1 μ s, frequencies to hundreds of kHz, and pressure levels down to fractions of a psi. Using pure synthetic quartz crystals under high compressive preload, these transducers produce a clean, low-impedance voltage signal compatible with many readout instruments.

SPECIFICATIONS

Excitation: 2 mA nominal
@ 18 to 30 Vdc, constant current

Rated Output: 5V nominal FS

Rise Time: 1.0 μ s

Resonant Frequency: 500 kHz

High Frequency Range: 170 kHz
(approx. $\frac{1}{3}$ of resonant frequency)

Low Frequency Range (-3 dB):
0.08 Hz (101-250), 0.03 Hz (101-500),
0.02 Hz (101-1K), 0.003 Hz (101-5K)

Acceleration Sensitivity: 0.002 psig

Discharge Time Constant:

- 2 s (DPX101-250)
- 5 s (DPX101-500)
- 10 s (DPX101-1K)
- 50 s (DPX101-5K)

Proof Pressure:

- 5000 psi (DPX101-250)
- 10,000 psi (DPX101-500)
- 10,000 psi (DPX101-1K)
- 15,000 psi (DPX101-5K)

Overload Recovery: 10 μ s for 2x range

Maximum Shock: $\pm 10,000$ g peak

Maximum Vibration: ± 5000 g

Amplitude Linearity: $\pm 1\%$ FS (BSFL/0)

Temperature Range:

-100 to 250°F (-75 to 120°C)

Temperature Sensitivity Effect:

0.03% FS/°F

Output Impedance: 100 Ω

Bias Voltage: 10V nominal

Noise Floor (Wideband, RMS):

0.004 psi (DPX101-250)

0.007 psi (DPX101-500)

0.014 psi (DPX101-1K)

0.07 psi (DPX101-5K)

Weight: 14 g (0.5 oz) nominal

Material: 316L SS diaphragm,

17-4 SS housing

Connector: 10-32 male termination
(cable sold separately; order Model
No. ACC-CB2-10)

Recommended Reference Book:

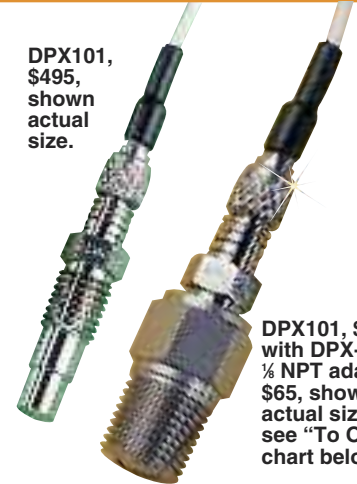
Diesel Engine Engineering,
ME-1740, \$190.

See Section Y

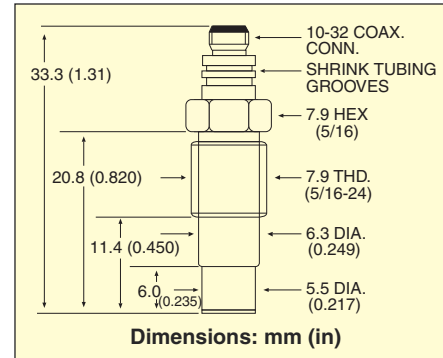
For Additional Books



DPX101,
\$495,
shown
actual
size.



DPX101, \$495,
with DPX-NPT
 $\frac{1}{8}$ NPT adaptor,
\$65, shown
actual size,
see "To Order"
chart below.



MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)

MODEL NO.	PRICE	RANGE (psig)
DPX101-250	\$495	0 to 250
DPX101-500	495	0 to 500
DPX101-1K	495	0 to 1000
DPX101-5K	495	0 to 5000
ACC-CB2-10	55	3 m (10') coaxial cable (10-32/BNCM) required

ACCESSORIES

MODEL NO.	PRICE	DESCRIPTION
DPX-NPT	\$65	$\frac{1}{8}$ NPT flush mount adaptor
DPX101-3824	70	$\frac{3}{8}$ -24 flush mount adaptor
DPX-6600	2	Replacement brass seals

POWER SUPPLIES

MODEL NO.	PRICE	DESCRIPTION
ACC-PS1	\$205	Battery power supply (BNC connections)
ACC-PS2	530	Battery power supply/amplifier (BNC connections)
ACC-PS3	525	AC power supply (BNC connections)

CABLES

MODEL NO.	PRICE	DESCRIPTION
ACC-CB4-15	\$65	4.6 m (15') coaxial cable (BNCM/BNCM)
ACC-CB5-2	35	0.6 m (2') coaxial cable (BNCM/banana plug)
ACC-CB6	15	178 mm (7") coaxial cable (BNCM/pigtail)

Comes complete with 2 DPX-6600 seals, calibration certificate and operator's manual.
See pages K-16 through K-18 for details on the above accessories.

Ordering Example: DPX101-250, 0 to 250 psig transducer, DPX-NPT, 3.2 mm ($\frac{1}{8}$ ") flush mount adaptor, ACC-CB2-10, 3 m (10') coaxial cable, ACC-PS1, power supply, ACC-CB5-2, banana plug cable, \$495 + 65 + 55 + 205 + 35 = \$855.



UNITED STATES

www.omega.com
1-800-TC-OMEGA
Stamford, CT.

CANADA

www.omega.ca
Laval(Quebec)
1-800-TC-OMEGA

GERMANY

www.omega.de
Deckenpfronn, Germany
0800-8266342

UNITED KINGDOM

www.omega.co.uk
Manchester, England
0800-488-488

FRANCE

www.omega.fr
Guyancourt, France
088-466-342

CZECH REPUBLIC

www.omegaeng.cz
Karviná, Czech Republic
596-311-899

BENELUX

www.omega.nl
Amstelveen, NL
0800-099-33-44



More than 100,000 Products Available!

• Temperature

Calibrators, Connectors, General Test and Measurement Instruments, Glass Bulb Thermometers, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders Relative Humidity Measurement Instruments, RTD Probes, Elements and Assemblies, Temperature & Process Meters, Timers and Counters, Temperature and Process Controllers and Power Switching Devices, Thermistor Elements, Probes and Assemblies, Thermocouples Thermowells and Head and Well Assemblies, Transmitters, Wire

• Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

• pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

• Data Acquisition

Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

• Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Strain Gages, Torque Transducers, Valves

• Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters